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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/803,977

03/19/2004

Hideyuki Hashi

2004-0278A

6479

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7590

08/11/2006

WENDEROTH, LIND & PONACK, L.L.P.
2033 K STREET N. W.
SUITE 800
WASHINGTON, DC 20006-1021

EXAMINER

KLIMOWICZ, WILLIAM JOSEPH

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/803,977

Applicant(s)

HASHI ET AL.

Examiner

William J. Klimowicz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13 and 15-26 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 August 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

The replacement drawings were received on August 2, 2004. These drawings are objected to for the following reasons:

The drawings are objected to because reference designators **66a**, **66b**, **66c**, **66d** and **66e** (see page 17, first full paragraph of specification) and reference designators **72a**, **72b**, **72c**, **72d** and **74a** (see page 19, first full paragraph of specification) are not depicted in the Replacement drawings (or original drawings).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

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application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Substitute Specification

The substitute specification filed on October 6, 2004 has been entered, since it is in full compliance with 37 CFR 1.125.

Specification Objection

With regard to page 9 (line 9), the phrase "head support device 11" should be changed to the phrase --head support device 9--.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13 and 15-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Berding (US 5,936,803).

As per claim 13, Berding (US 5,936,803) discloses a head support device for supporting a read and/or write head (mounted to slider (140)) for recording information on a recording

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medium and/or reproducing information from the recording medium (12), the recording medium (12) rotating around an axis of rotation of the recording medium (12 (see FIG. 1), said head support device comprising: a base arm (110) operable to pivot about a first axis (about (114)) that is parallel to and spaced apart from the axis of rotation of the recording medium (12); a support arm (120) coupled to said base arm (110) so as to be pivotable about the first axis with said base arm (110), said support arm (120) being operable to pivot about a second axis (A-axis) relative to said base arm (110), the second axis (A-axis) extending through a pivot fulcrum (e.g., 170 and/or the structural correspondence hinge (550) as seen in the conceptual drawing of Figure 2) and being perpendicular to the first axis (axis through (114)), said pivot fulcrum being located at one of a top surface of said base arm, a bottom surface of said base arm, and a position between said top surface and said bottom surface (e.g., see Figures 2, 3, 4 and/or 7) with respect to a thickness direction of said base arm (110); a flexure (130) attaching a slider (140) to a first end of said support arm (120) (at distal end as seen in Figure 3); and a spring member (e.g., 150) coupling said support arm (120) to said base arm (110) for applying a thrust force to the head, said spring member (150) having a rigidity lower than a rigidity of said support arm (120).

As per claim 15, wherein said pivot fulcrum (e.g., 170 and/or the structural correspondence hinge (550) as seen in the conceptual drawing of Figure 2) is located at a tip of said base arm (110) of a side of the head - see Figure 3.

As per claim 16, wherein said pivot fulcrum (e.g., 170 and/or the structural correspondence hinge (550) as seen in the conceptual drawing of Figure 2) is located at a tip edge of said base arm (110) of a side of the head - see Figure 3.

As per claim 17, wherein a center of mass of said support arm (120) is located at said pivot fulcrum - see, e.g., *inter alia*, COL. 5, lines 45-57.

As per claim 18, wherein said base arm (110) has an aperture (116).

As per claim 19, wherein a portion of said support arm (160) is located within said aperture (116).

As per claim 20, wherein said aperture comprises a first aperture (116), said base arm (110) further having a second aperture (see mount hole (114)) (Figure 4).

As per claim 21, wherein a portion of said support arm (120) is located within at least one of said first aperture (116) and said second aperture.

As per claim 22, wherein said spring member (150) is made of a resilient material.

As per claim 23, wherein said spring member (150) is secured to said base arm (110).

Additionally, as per claim 24, a disk drive is provided (see Figure 1) comprising: a recording medium (12); a rotation driving mechanism (spindle motor) for rotating said recording medium (12) about an axis of rotation of said recording medium (12); a read and/or write head for recording information on said recording medium (12) and/or for reproducing information from said recording medium (12), the second axis (A-axis) is extending through the pivot fulcrum and being perpendicular to the first axis, said base arm (110) being located between said support arm (120) and said recording medium (12).

As per claim 25, see the discussion with regard to claim 13, *supra*.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berding (US 5,936,803).

See the description of Berding (US 5,936,803), *supra*.

As per claim 26, although Berding (US 5,936,803) remains silent with respect to head signal wirings connecting the head to the base arm through the support arm, the spring member, and an assembly as set forth in claim 26,

Official notice is taken that such head signals flex circuits and configurations as set forth in claim 26, are notoriously old and well known and ubiquitous in the art; such Officially noticed fact being capable of instant and unquestionable demonstration as being well-known.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the support device of Berding (US 5,936,803) as including a flex circuit (head signals) in the manner arranged by claim 26, as is well known in the art.

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the support device of Berding (US 5,936,803) as including a flex circuit (head signals) in the manner arranged by claim 26, as is well known in the art, in order to provide signals which contain information between the head and associated circuitry, for reading/writing information to/from the recording medium, as is well known, established and appreciated in the art.

Allowable Subject Matter

Claim 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

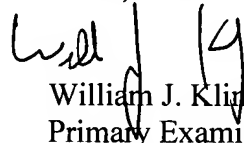
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (571) 272-7577. The examiner can normally be reached on Monday-Thursday (6:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


William J. Klimowicz
Primary Examiner
Art Unit 2627

WJK